



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,010	06/29/2000	Masato Okabe	CU-2263 TFP	7333

7590 06/28/2002

Thomas F Peterson
c/o Ladas & Parry
224 South Michigan Avenue
Chicago, IL 60604

EXAMINER

MCPHERSON, JOHN A

ART UNIT	PAPER NUMBER
----------	--------------

1756

DATE MAILED: 06/28/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-4

Office Action Summary

Application No.

09/607,010

Applicant(s)

OKABE ET AL.

Examiner

John A. McPherson

Art Unit

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2000 and 21 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 18-21 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitations "the wettability" and "the energy-irradiated part" in line 4. There is insufficient antecedent basis for these limitations in the claims. Claims 19-21 are include in this rejection due to their dependency from claim 18.

Claim 27 recites the limitations "the exposed part" and "the ink jet system" (twice) in lines 2-4. There is insufficient antecedent basis for these limitations in the claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily

Art Unit: 1756

published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 5-6 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by either one of U.S. Patent No. 5,817,441 to Iwata et al (Iwata) or U.S. Patent No. 5,908,721 to Emoto et al (Emoto).

Iwata discloses a color filter prepared by a process comprising the steps of forming a pre-cured black matrix pattern having a water repellency on a transparent substrate, applying color inks to the portions of the substrate corresponding to the spaces of the pre-cured black matrix pattern, and complete curing the pre-cured matrix (see the abstract), wherein the water repellency of the black matrix material decreases after the complete curing (see column 3, line 66 to column 4, line 19).

Emoto discloses a color filter fabricated by a method comprising the steps of attaching hydrophilic light-shading colored ink to a surface of a transparent substrate in a predetermined pattern, forming a water repellent light-shading colored layer by rendering the light-shading colored ink hydrophobic, and forming pixels by attaching hydrophilic color ink for pixels to portions of the transparent substrate where the water repellent light-shading colored layer is not formed. See column 6, lines 29-38.

Therefore, this invention is not novel.

3. Claims 1-6 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 665 449 (EP '449). EP '449 discloses a color filter produced by a process comprising the steps of forming a layer of a resin composition having a wettability by ink

Art Unit: 1756

which is lowered or improved by light exposure, subjecting the resin layer to patterned exposure, ejecting inks using an ink-jet system to separately color portions of the resin layer, and setting the colored portions with light and/or heat. See page 4, line 43 to page 5, line 9. Therefore, this invention is not novel.

4. Claims 1-7, 10-11, 14 and 16-28 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,399,257 to Shirota et al. (Shirota). Shirota discloses a color filter manufacturing method, and a color filter manufactured by the method, the method comprising the steps of forming on a substrate a photosensitive layer that increases or develops hydrophilic property upon irradiation of light, exposing the photosensitive layer to light for patterning to form hydrophilic areas and non-hydrophilic areas, and applying a setting ink to the hydrophilic areas with an ink jet technique. See the abstract; column 3, line 60 to column 4, line 27; and column 11, lines 24-38.

Therefore, this invention is not novel.

5. Claims 1-28 are rejected under 35 U.S.C. 102(b) as being anticipated by WO99/08158 (WO '158). WO '158 discloses a pattern forming body for optically forming a pattern, characterized by having a photocatalyst-containing layer on a substrate, the layer containing a material whose wettability is changed when the pattern is exposed to light. Applications include a color filter and methods of preparing the same. See the abstract. Furthermore, WO '158 discloses a process of forming a color filter comprising the steps of forming a photocatalyst layer on a substrate; exposing the

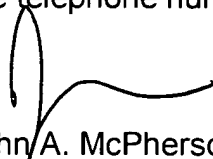
Art Unit: 1756

substrate to light to bring light exposed areas to a high critical surface tension state, thereby forming areas of specific wettability; and feeding colored coating compositions to the photocatalyst layer by a coating method such as ink jetting. See Figures 13-21 of WO '158, which are described in the English language at column 7, line 53 to column 10, line 25 and column 33, line 8 to column 38, line 12 of U.S. Patent No. 6,294,313 (the 35 USC 371 U.S. patent related to WO '158). Therefore, this invention is not novel.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (703) 308-2302. The examiner can normally be reached on Monday through Friday, 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (703) 308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



John A. McPherson
Primary Examiner
Art Unit 1756

JAM
June 26, 2002